REMARKS

Claims 1-20 are pending in this application. All claims stand rejected.

Rejection of Claim 1 under 35 U.S.C. § 112

Claim 1 has been rejected under 35 U.S.C. § 112 for failing to provide sufficient antecedent basis for the limitation "the computer" in lines 1-2. Applicant notes that the language "the computer" is a compound term in the preamble that should more appropriately be read "the computer implemented steps." Read this way, the full phrase requires that the claimed steps are implemented by a computer. In an abundance of clarity, Claim 1 is now amended to read "a method...comprising computer implemented steps of..." Thus, the rejection of Claim 1 under 35 U.S.C. § 112 should be withdrawn.

Rejection of Claims 1, 5-10 and 14-19 under 35 U.S.C. § 102(b)

Claims 1, 5-10 and 14-19 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Moreno et al., "Using the Fisher Kernel Method for Web Audio Classification." Applicants respectfully disagree with these rejections and request reconsideration.

Applicants provide a method and system for classifying, identifying or verifying an object as claimed in base Claims 1, 10 and 18. The method includes (i) representing an object by a respective sequence of vectors, (ii) modeling the sequence of vectors with a respective generative model, and (iii) using the generative model to classify, identify or verify the object.

Moreno et al. teaches no such method. Rather, Moreno describes a method for constructing a generative model using audio sequences that are known to belong to a particular class (see page 2417, section 2, para. 1). This generative model represents the training data of a particular class. The generative model is used to produce feature vectors that characterize that class. Next, test data is collected and converted to feature vectors (page 2418, section 3). By comparing the test data feature vectors to the class feature vectors, the test data can be identified as belonging to one of the classes of audio data.

Moreno fails to teach or suggest "classifying, identifying or verifying" an object by representing the object by a "sequence of vectors," and "modeling the sequence of vectors with a respective generative model" as claimed in base Claims 1, 10 and 18. In Moreno, only the

"training" data is used to produce a generative model. The model is not used to classify the training data. Rather, the training data belongs to a known class and is used to create a generative model for that class (page 2418, section 4.1). The data to be classified is represented by a sequence of vectors (page 2418, section 3, para. 3). However, these vectors are not modeled by a generative model, and Moreno makes no suggestion of such modeling. By representing an object with a generative model, embodiments of the present invention provide a more accurate representation of the object, which can be used by a discriminative model to classify the object more accurately.

Claims 5-9 and 14-17 and 19 depend from one of base Claims 1, 10 and 18 and thus the foregoing applies. As a result, the § 102 rejection of claims 1, 5-10 and 14-19 cannot stand, and Applicants respectfully request withdrawal of this rejection.

Rejection of Claims 2-4, 11-13 and 20 under 35 U.S.C. § 103

Claims 2-4, 11-13 and 20 have been rejected under 35 U.S.C. § 103 a being unpatentable over Moreno in view of Hollmen et al., "A Learning Vector Quantization Algorithm for Probabilistic Models." These claims depend from one of Claims 1, 10 and 18 and thus the foregoing applies with respect to Moreno. Further, Hollmen also fails to suggest the modeling (i.e., "modeling the sequence of vectors with a respective generative model") as claimed in base Claims 1, 10 and 18, and the Examiner has not asserted otherwise. Thus, one skilled in the art would find no suggestion in Moreno, alone or in combination with Hollmen, to arrive at the method or system of classifying, identifying or verifying objects as claimed in base Claims 1, 10 and 18.
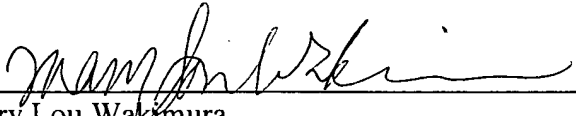
Claims 2-4, 11-13 and 20 depend from one of base Claims 1, 10 and 18 and therefore are patentable for at least the above reasons. Withdrawal of the § 103 rejection of claims 2-4, 11-13 and 20 is respectfully requested.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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